CLAIMS

1. The use of at least one polypeptide comprising at least one fragment of a protein to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to SEQ ID No. 8 and SEQ ID No. 10 to SEQ ID No. 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

2. The use of at least two polypeptides in combination, said polypeptides each comprising at least one fragment of a protein, to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or

autoimmune disease, said protein being chosen from proteins whose peptide sequence in the native state corresponds to a peptide sequence chosen from SEQ ID No. 1 to SEQ ID No. 8 and SEQ ID No. 10, SEQ ID No. 29, and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to SEQ ID No. 8 and SEQ ID No. 10 to SEQ ID No. 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

3. The use of at least one polypeptide comprising at least one fragment of a protein to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, said protein being chosen from the proteins whose peptide sequence in the native state corresponds to SEQ ID No. 2, SEQ ID No. 4, SEQ ID No. 8, SEQ ID No. 17 and SEQ ID No. 24 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 2, SEQ ID No. 4, SEQ ID No. 8, SEQ ID No. 17 and SEQ ID No. 24.

4. The use as claimed in claim 3, of five polypeptides in combination, said polypeptides each comprising at least one fragment of a protein, to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, prognosticating, preventing or treating

a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, said protein being chosen from the proteins whose peptide sequence in the native state corresponds to SEQ ID No. 2, SEQ ID No. 4, SEQ ID No. 8, SEQ ID No. 17 and SEQ ID No. 24 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 2, SEQ ID No. 4, SEQ ID No. 8, SEQ ID No. 17 and SEQ ID No. 24.

5. The use as claimed in any one of claims 1 to 4, characterized in that the peptide sequence of said polypeptide comprises a sequence chosen from any one of SEQ ID No. 2, SEQ ID No. 4, SEQ ID No. 8, SEQ ID No. 17 and SEQ ID No. 24.

6. The use as claimed in any one of claims 1 to 4, characterized in that the peptide sequence of said polypeptide consists of a sequence chosen from any one of SEQ ID No. 2, SEQ ID No. 4, SEQ ID No. 8, SEQ ID No. 17 and SEQ ID No. 24.

7. The use of a polypeptide fragment defined in claim 1 or in claim 3 for the preparation of an immunogenic peptide, characterized in that said peptide comprises all or part of at least one of the sequences designated by the references SEQ ID No. 58 to 65.

8. The use of at least one nucleotide fragment to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, prognosticating, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, according to which said nucleotide

fragment is chosen from fragments which encode at least one fragment of a protein, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to SEQ ID No. 8 and SEQ ID No. 10 to 29, the fragments complementary to said fragments and the fragments which encode the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

9. The use as claimed in claim 8, characterized in that said nucleotide fragment encodes said protein.

10. The use as claimed in claim 9, characterized in that the peptide sequence of said protein in the native state consists of a sequence chosen from any one of SEQ ID No. 1 to 8 and SEQ ID No. 10 to 29 and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

11. The use of at least one nucleotide fragment to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, prognosticating, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, according to which said fragment is a fragment of a nucleic sequence chosen from any one of SEQ ID No. 30, SEQ ID No. 31, SEQ ID No. 32, SEQ ID No. 33, SEQ ID No. 34, SEQ ID No. 35, SEQ ID No. 36, SEQ ID No. 37, SEQ ID No. 38, SEQ ID No. 39, SEQ ID No. 40, SEQ ID No. 41, SEQ ID No. 42, SEQ ID No. 43, SEQ ID No. 44, SEQ ID No. 45, SEQ ID No. 46 and SEQ ID No. 47, SEQ ID No. 48, SEQ ID No. 49 and SEQ ID No. 50, SEQ ID No. 51, SEQ ID No. 52, SEQ ID No. 53, SEQ ID No. 54, SEQ ID No. 55, SEQ ID No. 56, SEQ ID No. 57, SEQ ID No. 67, SEQ ID No. 66, SEQ ID No. 69, SEQ ID No. 70 and SEQ ID No. 71, and their complementary sequences.

12. The use of a ligand specific for a polypeptide or for a nucleotide fragment as claimed in any one of the preceding claims to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, prognosticating, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease.

13. The use as claimed in any one of the preceding claims, characterized in that the degenerative and/or autoimmune disease is multiple sclerosis.

14. A method for detecting at least one protein associated with a degenerative and/or autoimmune disease, in a biological sample, characterized in that the biological sample is brought into contact

with at least one ligand specific for at least one polypeptide, said polypeptide comprising at least one fragment of a protein and said protein being chosen from the proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to SEQ ID No. 8 and SEQ ID No. 10 to 29, and the peptide sequences or fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B, and then the formation of a complex between said polypeptide and said ligand is detected.

15. The method as claimed in claim 14, characterized in that said ligand is a monoclonal antibody, a polyclonal antibody, a receptor, a substrate for enzymatic activity or an enzyme for which said polypeptide is a cofactor.

16. A method for detecting at least one ligand associated with a degenerative and/or autoimmune disease, in a biological sample, characterized in that the biological sample is brought into contact with at least one polypeptide comprising at least one fragment of a protein, said protein being

chosen from the proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to SEQ ID No. 8 and SEQ ID No. 10 to SEQ ID No. 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B, and then the formation of a complex between said polypeptide and said ligand is detected.

17. The method as claimed in claim 16, characterized in that the ligand is an antibody, a receptor, a substrate for enzymatic activity or an enzyme for which said polypeptide is a cofactor.

18. The method as claimed in any one of claims 14 to 17, characterized in that the sequence of said polypeptide comprises a peptide sequence chosen from any one of SEQ ID No. 1 to 8 and SEQ ID No. 10 to 29.

19. The method as claimed in any one of claims 14 to 17, characterized in that the sequence of said polypeptide consists of a peptide sequence chosen

from any one of SEQ ID No. 1 to 8 and SEQ ID No. 10 to 29.

20. The method as claimed in any one of claims 14 to 19, characterized in that the biological sample is urine, cerebrospinal fluid or serum.

21. The method as claimed in any one of claims 14 to 20, characterized in that the degenerative and/or autoimmune disease is multiple sclerosis.

22. A polypeptide, characterized in that it comprises at least one fragment of a protein whose peptide sequence corresponds to SEQ ID No. 9, said fragment comprising at least one mutation in relation to the reference sequence SEQ ID No. 8.

23. The polypeptide as claimed in claim 22, characterized in that it comprises at least two mutations in relation to the reference sequence SEQ ID No. 8.

24. The polypeptide as claimed in claim 22, characterized in that it is chosen from the polypeptides which comprise the amino acid sequence FSWDNCFEGKDPAVIR, designated by the reference SEQ ID No. 68, and the amino acid sequence YSLPKSEFAVPDLELP, designated by the reference SEQ ID No. 72.

25. The polypeptide as claimed in one of claims 22 to 24, characterized in that it comprises a protein whose peptide sequence corresponds to SEQ ID No. 9.

26. The polypeptide as claimed in one of claims 22 to 25, characterized in that it consists of a protein whose peptide sequence corresponds to SEQ ID No. 9.

27. The use of at least one polypeptide as claimed in any one of claims 22 to 26 to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, prognosticating, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease.

28. The use as claimed in claim 26, characterized in that the polypeptide as defined in any one of claims 22 to 26 is used in the form of a mixture with at least one polypeptide as defined in any one of claims 1 to 5.

29. A method for detecting at least one ligand associated with a degenerative and/or autoimmune disease, in a biological sample, characterized in that the biological sample is brought into contact with at least one polypeptide as defined in any one of claims 22 to 26, and then the formation of a complex between said polypeptide and the ligand is detected.

30. The method as claimed in claim 29, characterized in that the biological sample is brought into contact with a polypeptide as defined in any one of claims 22 to 26 and with at least one polypeptide as defined in any one of claims 1 to 5.

31. The method as claimed in claim 29 or 30, characterized in that said ligand is an antibody, a receptor, a substrate for enzymatic activity or an enzyme for which said polypeptide is a cofactor.

32. A method for detecting at least one polypeptide as defined in any one of claims 22 to 26, in a

biological sample, characterized in that the biological sample is brought into contact with at least one ligand specific for said polypeptide, and then the formation of a complex between said polypeptide and said ligand is detected.

33. The method as claimed in claim 32, characterized in that said ligand is a monoclonal antibody, a polyclonal antibody, a receptor, a substrate for enzymatic activity or an enzyme for which said polypeptide is a cofactor.

34. The method as claimed in claim 30 or 31, characterized in that the biological sample is brought into contact with a ligand as defined in either of claims 31 and 33 and at least one ligand specific for at least one polypeptide as defined in any one of claims 1 to 5, and then the formation of complexes between said polypeptides and said ligands specific for said polypeptides is detected.

35. The method as claimed in claim 34, characterized in that the ligand is a monoclonal antibody, a polyclonal antibody, a receptor, a substrate for enzymatic activity or an enzyme for which said polypeptide is a cofactor.

36. A nucleotide fragment, characterized in that it encodes a polypeptide as defined in any one of claims 22 to 26.

37. The use of a nucleotide fragment to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, prognosticating, preventing or treating a pathological condition associated with a degenerative and/or autoimmune disease, according to which said nucleotide fragment is the

nucleotide fragment defined in claim 35, optionally in combination with at least one nucleotide fragment as defined in any one of claims 8 to 11, and the fragments complementary to said fragments.

38. The method as claimed in any one of claims 29 to 35, characterized in that the biological sample is urine, cerebrospinal fluid or serum.

39. The method as claimed in any one of claims 29 to 36, characterized in that the degenerative and/or autoimmune disease is multiple sclerosis.

40. A method for detecting at least one polypeptide as defined in any one of claims 1 to 5 or in any one of claims 22 to 26, according to which a sample of a biological fluid is collected from a patient having a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease and, optionally after purification of said sample of biological fluid, the mass profile obtained from the biological fluid is analyzed by mass spectrometry and compared with a reference mass profile.

41. The use of at least one polypeptide comprising at least one fragment of a protein to obtain a diagnostic, prognostic, prophylactic or therapeutic composition for detecting, preventing or treating a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 8, SEQ ID No. 9, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22,

SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 8 to SEQ ID No. 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from the precursor of the ganglioside GM2 activator, calgranulin B and saposin B, and preferably SEQ ID Nos.: 8, 9, 17 and 24.

42. The use as claimed in claim 41, in which the peptide sequences are comprise the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from the precursor of the ganglioside GM2 activator and saposin B.

43. The use as claimed in either of claims 41 and 42, which is associated with the use of a detection of a gliotoxic activity.

44. A diagnostic or prognostic method in which at least one polypeptide as claimed in any one of claims 41 to 43 is assayed to detect or prevent a pathological condition, the assay making it possible to obtain a concentration value which should be compared with a threshold value representative of a degenerative and/or neurological and/or autoimmune disease.

45. The method as claimed in claim 44, in which the threshold value is obtained by an ELISA test for a urine sample, this value being:

- 400 ng/ml for the precursor of the ganglioside GM2 activator, for the GM2AP84 antibody, and

• 2 µg/ml for saposin B, for the SAPB84 antibody.

46. A diagnostic or prognostic method in which at least one polypeptide as claimed in any one of claims 41 to 43 is detected in order to prevent a pathological condition, the detection being carried out in cells or in the supernatants of said cells from a patient likely to suffer from a degenerative and/or neurological and/or autoimmune disease.

47. The method as claimed in claim 46, in which the detection is carried out on monocyte or macrophage cells or in the supernatants of these cells obtained from a patient likely to suffer from a degenerative and/or neurological and/or autoimmune disease.

48. The method as claimed in either of claims 46 and 47, in which the detection is carried out on cells or in the supernatants of these cells in culture, after a period of between 6 and 12 days of culture, preferably after 9 days.

49. The method as claimed in either of claims 46 and 47, in which the detection is carried out on cells, in vivo or ex vivo, preferably monocytes or macrophages, in brains of patients likely to suffer from a degenerative and/or neurological and/or autoimmune disease.

50. The use or method as claimed in any one of claims 41 to 49, characterized in that the degenerative and/or neurological and/or autoimmune disease is multiple sclerosis or a (progressive, remittent, remittent-progressive) form or an activity phase (attacks) of this disease.

51. The use of at least one polypeptide comprising at least one fragment of a protein to test the efficacy of a therapeutic agent, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 9, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

52. The use of at least one polypeptide comprising at least one fragment of a protein for the preparation of a pharmaceutical composition for treating a degenerative and/or neurological and/or autoimmune disease, such as multiple sclerosis, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 9, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ

ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin and saposin.

53. The use as claimed in claim 51 or 52, characterized in that the polypeptide is chosen from SEQ ID No. 2, 4, 8, 9, 17, 24.

54. The use of at least one nucleotide fragment, to test the efficacy of a therapeutic agent for a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, according to which said nucleotide fragment is chosen from the fragments which encode at least one fragment of a protein, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 9, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to 29, the fragments complementary to

said fragments and the fragments which encode the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

55. The use, to test the efficacy of a therapeutic agent for a pathological condition associated with a degenerative and/or neurological and/or autoimmune disease, of recombinant proteins and/or proteins encoded by all or part of the nucleotide fragments defined in claim 54.

56. The use of at least one nucleotide fragment for the preparation of a pharmaceutical composition for treating a degenerative and/or neurological and/or autoimmune disease, such as multiple sclerosis, according to which said nucleotide fragment is chosen from the fragments which encode at least one fragment of a protein, said protein being chosen from proteins whose peptide sequence in the native state corresponds to SEQ ID No. 1, SEQ ID No. 2, SEQ ID No. 3, SEQ ID No. 4, SEQ ID No. 5, SEQ ID No. 6, SEQ ID No. 7, SEQ ID No. 8, SEQ ID No. 9, SEQ ID No. 10, SEQ ID No. 11, SEQ ID No. 12, SEQ ID No. 13, SEQ ID No. 14, SEQ ID No. 15, SEQ ID No. 16, SEQ ID No. 17, SEQ ID No. 18, SEQ ID No. 19, SEQ ID No. 20, SEQ ID No. 21, SEQ ID No. 22, SEQ ID No. 23, SEQ ID No. 24, SEQ ID No. 25, SEQ ID No. 26, SEQ ID No. 27, SEQ ID No. 28 and SEQ ID No. 29 and the peptide sequences which exhibit at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to 29, the fragments complementary to said fragments and the fragments which encode the peptide sequences or the fragments of said

sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

57. The use, for the preparation of a pharmaceutical composition for treating a degenerative and/or neurological and/or autoimmune disease, such as multiple sclerosis, of recombinant proteins and/or proteins encoded by all or part of the nucleotide fragments defined in claim 56.

58. The use as claimed in claim 54 or 56, characterized in that said nucleotide fragment encodes said protein.

59. The use as claimed in claim 58, characterized in that the peptide sequence of said protein in the native state consists of a sequence chosen from any one of SEQ ID No. 1 to 29, the peptide sequences exhibiting at least 70% identity, preferably at least 80% identity and advantageously at least 98% identity with any one of the peptide sequences SEQ ID No. 1 to 29, and the peptide sequences or the fragments of said sequences belonging to the same family of proteins chosen from Perlecan, the precursor of the retinol-binding plasma protein, precursor of the ganglioside GM2 activator, calgranulin B and saposin B.

60. The use as claimed in claim 59, characterized in that the polypeptides are chosen from SEQ ID No. 2, 4, 8, 9, 17, 24.

61. The use of at least one nucleotide fragment to test the efficacy of a therapeutic agent for a pathological condition associated with a

degenerative and/or neurological and/or autoimmune disease according to which said fragment is a fragment of a nucleic sequence chosen from any one of SEQ ID No. 30, SEQ ID No. 31, SEQ ID No. 32, SEQ ID No. 33, SEQ ID No. 34, SEQ ID No. 35, SEQ ID No. 36, SEQ ID No. 37, SEQ ID No. 38, SEQ ID No. 39, SEQ ID No. 40, SEQ ID No. 41, SEQ ID No. 42, SEQ ID No. 43, SEQ ID No. 44, SEQ ID No. 45, SEQ ID No. 46 and SEQ ID No. 47, SEQ ID No. 48, SEQ ID No. 49 and SEQ ID No. 50, SEQ ID No. 51, SEQ ID No. 52, SEQ ID No. 53, SEQ ID No. 54, SEQ ID No. 55, SEQ ID No. 56, SEQ ID No. 57, SEQ ID No. 66, SEQ ID No. 67, SEQ ID No. 69, SEQ ID No. 70 and SEQ ID No. 71, and their complementary sequences.

62. The use of at least one nucleotide fragment for the preparation of a pharmaceutical composition for treating a degenerative and/or neurological and/or autoimmune disease, such as multiple sclerosis, according to which said fragment is a fragment of a nucleic sequence chosen from any one of SEQ ID No. 30, SEQ ID No. 31, SEQ ID No. 32, SEQ ID No. 33, SEQ ID No. 34, SEQ ID No. 35, SEQ ID No. 36, SEQ ID No. 37, SEQ ID No. 38, SEQ ID No. 39, SEQ ID No. 40, SEQ ID No. 41, SEQ ID No. 42, SEQ ID No. 43, SEQ ID No. 44, SEQ ID No. 45, SEQ ID No. 46 and SEQ ID No. 47, SEQ ID No. 48, SEQ ID No. 49 and SEQ ID No. 50, SEQ ID No. 51, SEQ ID No. 52, SEQ ID No. 53, SEQ ID No. 54, SEQ ID No. 55, SEQ ID No. 56, SEQ ID No. 57, SEQ ID No. 66, SEQ ID No. 67, SEQ ID No. 69, SEQ ID No. 70 and SEQ ID No. 71, and their complementary sequences.

63. The use as claimed in claim 61 or 62, characterized in that the nucleic sequence is chosen from SEQ ID No. 30, 31, 42, 53.

64. The use of lycorine for the preparation of a composition for preventing and/or treating a degenerative and/or neurological and/or autoimmune disease.